

CLAIMS

1. An illumination device comprising a first elongate translucent member, an LED light source located at least at one end or edge of the member to pass light into and along the member, a second translucent member arranged in superimposed relationship with the first translucent member thus to define a gas space therebetween;
characterised by a surface formation on the first translucent member causing it, in use, to function as a leaky wave guide allowing light to escape into the gas space for secondary diffusion therein, the second translucent member thus being adapted to pass the secondarily diffused light externally thereof.
2. An illumination device according to claim 1 wherein the first translucent member is a rod, and the second translucent member is a tube surrounding the rod and defining the gas space therebetween.
3. An illumination device according to claim 1 or claim 2 wherein the first translucent member has an undulating surface.
4. An illumination device according to claim 2 wherein the rod is of circular cross-section.
5. An illumination device according to claim 2 wherein the rod is of elliptical cross-section.
6. An illumination device according to any preceding claim wherein the LED light source comprises separate light sources disposed at opposite ends respectively of the first translucent member.

7. An illumination device according to any preceding claim including a reflector disposed on a part of the surface of the first translucent member.
8. An illumination device according to any one of claims 1 to 6 including a reflector disposed on a part of the surface of the second translucent member, facing the first translucent member.
9. An illumination device according to any preceding claim wherein the first translucent member is of an acrylic or polycarbonate material.
10. An illumination device according to any preceding claim wherein the second translucent member is of an acrylic or polycarbonate material.
11. An illumination device according to any preceding claim wherein the surface formation is at least one region of striation on the surface of the first translucent member.
12. An illumination device according to claim 11 wherein, in a central region between the ends of the first translucent member, the striation is of increased magnitude.
13. An illumination device according to any preceding claim including support means provided in the gas space to maintain a predetermined spacial relationship between the first and second translucent members.
14. An illumination device according to claim 8 wherein the reflector is provided by co-extrusion with the second translucent member thus to lie flush with an internal surface thereof.

15. An illumination device according to claim 8 or claim 14 wherein the reflector occupies about one quarter of the extent of the surface of the second translucent member on which it is disposed.
16. An illumination device according to claim 11 or claim 12 wherein the striation comprises a plurality of striations cut in the surface of the first translucent member to a depth of between 0.5 and 1mm and of a similar width, the V-shaped striations thus created extend at least substantially throughout the length of the first translucent member and are spaced apart around at least a part of the extent of the surface of the first translucent member.
17. An illumination device according to claims 12 and 16 wherein the striation of increased magnitude is provided by additional striations occupying less than the overall length of the first translucent member thus to concentrate light output in a region of the device furthest from the light source.